

REMARKS

Initially, Applicant wishes to thank the Examiner for conducting the telephone interview with Applicant's representative, Thomas Y. Ho, on November 20, 2009. The discussion that follows is consistent with comments made during the interview. Also, the amended claim set includes changes in accordance with suggestions that were made by the Examiner at the interview.

In the outstanding Office Action mailed May 28, 2009, the Examiner took the following actions:

(a) rejected claims 34-61 and 63-66 under 35 U.S.C. § 112, second paragraph, as being indefinite;

(b) rejected claims 34-42, 48-56, 61, and 63-66 under 35 U.S.C. § 103(a) as obvious over U.S. Patent Application Publication No. 2002/0088529 A1 to Ogawa et al. ("Ogawa") taken in view of at least one of U.S. Patent No. 4,753,707 to Crombie ("Crombie") and U.S. Patent No. 6,139,668 to Stokes et al. ("Stokes");

(c) rejected claims 43-47, 57, 58, and 60 under 35 U.S.C. § 103(a) as being unpatentable over Ogawa in view of at least one Crombie and Stokes, and further in view of at least one of U.S. Patent Application Publication No. 2001/0042586 A1 to Caretta et al. ("Caretta") and U.S. Patent Application Publication No. 2006/0096696 A1 to Oku et al. ("Oku"); and

(d) rejected claim 59 under 35 U.S.C. § 103(a) as being unpatentable over Ogawa in view of at least one Crombie and Stokes, and further in view of U.S. Patent Application Publication No. 2001/0002608 A1 to Okada et al. ("Okada").

By this reply, claims 34, 48, and 54 have been amended. Accordingly, claims 34-61 and 63-66 remain pending in this application. No new matter has been introduced by this reply.

A. Rejection of claims 34-61 and 63-66 under 35 U.S.C. § 112, second paragraph

In the Office Action, claims 34-61 and 63-66 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, page 2 of the Office Action indicates that independent claims 34 and 54 are unclear, and requests clarification. By this reply, claims 34 and 54 have been amended to recite “wherein applying the tread band and applying the pair of sidewalls are cyclically carried out by at least one unit following a controlled rate on each of a first primary drum and a second primary drum,” and “wherein each of the first and second primary drums are independently movable to interact sequentially with devices,” respectively, in accordance with the Examiner’s suggestions from pages 2 and 3 of the Office Action. In addition, claim 34 has been amended to recite “shaping the carcass structure from a substantially cylindrical form into a toroidal configuration to couple the carcass structure to the coaxially centered belt structure,” as suggested by the Examiner during the interview on November 20, 2009. Applicant submits that the amendments to the claims provide the requested clarification. Accordingly, Applicant requests reconsideration and withdrawal of the rejection of claims 34-61 and 63-66 were rejected under 35 U.S.C. § 112, second paragraph.

B. Rejection of claims 34-42, 48-56, 61, and 63-66 under 35 U.S.C. § 103(a) based on Ogawa, Crombie, and Stokes

On page 3 of the Office Action, claims 34-42, 48-56, 61, and 63-66 were rejected under 35 U.S.C. § 103(a) as being unpatentable based on Ogawa, Crombie, and Stokes. Applicant respectfully requests withdrawal of this rejection. Ogawa, Crombie, and Stokes, whether taken alone or in combination, fail to establish the required *prima facie* case of obviousness needed to support the rejection.

Of claims 34-42, 48-56, 61, and 63-66, claims 34 and 54 are independent.

Claim 34 has been amended, and now recites, *inter alia*, “wherein applying the tread band and applying the pair of sidewalls are cyclically carried out by at least one unit following a controlled rate on each of a first primary drum and a second primary drum, wherein the first primary drum and the second primary drum are independently movable to the at least one unit.” Ogawa fails to teach at least these features.

Ogawa teaches that “a carcass ply . . . is applied to a carcass band drum . . . in order to deform the carcass ply into a cylindrical shape, thereby producing a carcass band.” See Ogawa at paragraph [0039]. Ogawa also teaches that “after the center portion of carcass band 13 is deformed by expansion until it is brought into intimate contact with . . . a belt layer ring 21 properly set in advance, an unvulcanized rubber strip 14 . . . [is] applied to the outer peripheral face of the belt layer ring 21 by spirally winding round the rubber strip thereupon; and thus a tread 22 . . . is formed on the center portion of carcass band 23.” Id. at paragraph [0049]. Ogawa also teaches that “FIG. 1a shows a case where a rubber chafer 16 and a sidewall 17 are obtained . . . by winding round respective strips FIG. 1b shows a case where the sidewall 17 is obtained by winding . . . while the rubber chafer 16a is obtained by . . . application . . . by adhesion.” Id. at paragraph [0041].

Further, Ogawa teaches using various drums (e.g., a shaping drum, a carcass band shaping drum, and a belt tread band, discussed in paragraphs [0056] and [0061]) to form a tyre. However, Ogawa does not teach applying a tread 22 or belt tread bands 18 and 36, and applying a sidewall 17, cyclically following a controlled rate on two of those drums. Thus, Ogawa fails to disclose or suggest, “wherein applying the

tread band and applying the pair of sidewalls are cyclically carried out by at least one unit following a controlled rate on each of a first primary drum and a second primary drum, wherein the first primary drum and the second primary drum are independently movable to the at least one unit,” as recited in amended independent claim 34. The deficiencies of Ogawa have been acknowledged on page 3 of the Office Action.

Neither Crombie nor Stokes remedies the above-noted deficiencies of Ogawa. Crombie teaches a tire assembly machine having drums 74 and 75. See Crombie at column 3, line 49; and FIGS. 1-3. Crombie also teaches that the tire assembly machine includes a motor 28, and that for each step of motor 28, the respective positions of drums 74 and 75 are inverted or reversed as they turn together in a clockwise direction about a horizontal axis 78. See id. at column 4, lines 7, 8, and 65-68; and FIGS. 3 and 5. Because drums 74 and 75 turn together, Crombie fails to teach or suggest first and second primary drums that are independently movable. Furthermore, Crombie teaches that a grab ring 11 with tire parts is moved to drums 74 and 75, not vice versa. See id. at column 4, lines 21-27; and FIG. 1. Thus, Crombie fails to disclose or suggest, “wherein applying the tread band and applying the pair of sidewalls are cyclically carried out by at least one unit following a controlled rate on each of a first primary drum and a second primary drum, wherein the first primary drum and the second primary drum are independently movable to the at least one unit,” as recited in amended independent claim 34. Therefore Crombie fails to remedy the deficiencies of Ogawa.

Stokes discloses drums 58 and 60 that are mounted on a turret 18 such that they turn together. See Stokes at column 3, lines 58-63; and FIG. 1. Thus, Stokes teaches an arrangement similar to that taught by Crombie. As such, Stokes is deficient for

reasons similar to Crombie. Accordingly, both Crombie and Stokes fail to remedy the deficiencies of Ogawa with respect to amended independent claim 34. For at least the above reasons, claim 34 is allowable over Ogawa, Crombie, and Stokes.

Amended independent claim 54, though of different scope from amended independent claim 34, recites similar features to those discussed above in connection with claim 34. For example, claim 54 recites, *inter alia*, "wherein each of the first and second primary drums are independently movable to interact sequentially with devices for disposing the carcass structure, the at least one unit for applying the tread band, and the at least one unit for applying the pair of sidewalls." Accordingly, claim 54 is allowable over Ogawa, Crombie, and Stokes for reasons similar to claim 34. The remaining claims are allowable at least due to their dependence from one of the independent claims. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 34-42, 48-56, 61, and 63-66 under 35 U.S.C. § 103(a).

C. Rejection of claims 43-47, 57, 58, and 60 under 35 U.S.C. § 103(a) based on Ogawa, Crombie, Stokes, Caretta, and Oku

On page 4 of the Office Action, claims 43-47, 57, 58, and 60 were rejected under 35 U.S.C. § 103(a) as being unpatentable based on Ogawa, Crombie, Stokes, Caretta, and Oku. Applicant respectfully requests withdrawal of this rejection. Claims 43-47, 57, 58, and 60 depend from one of amended independent claims 34 and 54, and thus include all the elements thereof. The deficiencies of Ogawa, Crombie, and Stokes with respect to claims 34 and 54 have already been established in preceding paragraphs. Caretta and Oku fail to remedy the above-noted deficiencies of Ogawa, Crombie, and Stokes, nor have Caretta and Oku been cited for such a purpose.

Thus, claims 43-47, 57, 58, and 60 are allowable over Ogawa, Crombie, Stokes, Caretta, and Oku at least due to their dependence from claims 34 and 54.

D. Rejection of claim 59 under 35 U.S.C. § 103(a) as being unpatentable based on Ogawa, Crombie, Stokes, and Okada

On page 4 of the Office Action, claim 59 was rejected under 35 U.S.C. § 103(a) as being unpatentable based on Ogawa, Crombie, Stokes, and Okada. Applicant respectfully requests withdrawal of this rejection. Claim 59 depends from amended independent claim 54, and thus includes all the elements thereof. The deficiencies of Ogawa, Crombie, and Stokes with respect to claim 54 has already been established in preceding paragraphs. Okada fails to remedy the above-noted deficiencies of Ogawa, Crombie, and Stokes. For example, while Okada teaches providing two band drums 14a and 14b, Okada teaches that they are mounted on one driving section 13 that reverses their positions. See Okada, paragraphs [0074] and [0075], and FIGS. 7 and 8. Thus, the arrangement of drums in Okada is similar to that in Crombie and Stokes. As such, Okada is deficient for reasons similar to Crombie and Stokes. Therefore, claim 59 is allowable over Ogawa, Crombie, Stokes, and Okada at least due to its dependence from claim 54.

CONCLUSION

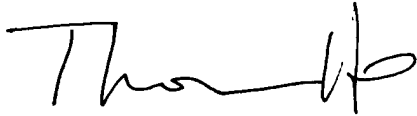
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims. If the Examiner believes a telephone conference would be useful in resolving any outstanding issues, the Examiner is kindly invited to contact the undersigned at (202) 408-4420.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

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